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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/839,963	04/23/2001	Sangki Hong	CS99-210	4495

28112 7590 05/16/2003

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EXAMINER

MALDONADO, JULIO J

ART UNIT	PAPER NUMBER
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2823

DATE MAILED: 05/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/839,963

Applicant(s)

HONG ET AL.

Examiner

Julio J. Maldonado

Art Unit

2823

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 12 May 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 2 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
 - (b) ☐ they raise the issue of new matter (see Note below);
 - (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
 - (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☒ The a) ☐ affidavit, b) ☐ exhibit, or c) ☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: See Continuation Sheet.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☐ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☐ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

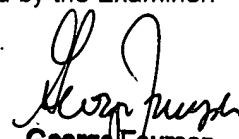
Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-3, 5-12 and 14-23.

Claim(s) withdrawn from consideration: _____.

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☐ Other: _____


George Fourson
Primary Examiner

Applicant's arguments filed 05/12/2003 have been fully considered but they are not persuasive: Applicants' argue, "...it is not obvious to combine the teachings of Wang with Liu...first, the time etch of Wang is performed on a conductive layer 22 through an opening 26 in a dielectric layer 23...this is not analogous to the timed etch performed by the applicants...second, the timed etch of Wang generated a slanted topography...". In response to this argument applicants assert that Wang et al. teach a time etch on a conductive layer through an opening in a dielectric layer and that the invention of Wang et al. create a slanted topography. However, Wang et al. was relied on a timed etch process and it can be performed either on a dielectric layer as disclosed by Wang et al. or on a conductive layer as disclosed in the claimed invention. Wang et al. teach etching partial thickness on a conductive layer using a mask and using a timed etch. If the timed-etching process of Wang et al. were performed using the masking structure of Liu et al., no slanted topography would be obtained.

Also, applicants' argue, the titanium/titanium nitride layer of Wang et al. "...is not obvious to one skilled in the art..." since "...the sides of the conductive layer are not exposed by the dielectric layer...the titanium/titanium nitride layer taught by Wang et al. is not analogous with the teachings of the applicant". In response to this argument, Wang et al. teach forming a conductive layer (22) and adding a titanium/titanium nitride layer or a titanium nitride layer (24), "which acts as a anti-reflective coating (ARC) (column 3, line 65 – column 4, line 4). This ARC layer is used for the patterning process performed on the metal layer (22) to form the metal pattern as shown in Figs.2A-2C. Therefore, Wang et al. does teach using layer 24 as an anti-reflective coating.